

IN THE CLAIMS

1. (currently amended) A recording and reproducing apparatus comprising:

reproducing means for reproducing main data and first management data for managing said main data that are recorded in a first recording medium,

a reproduction order changing means for changing a reproduction order of tracks of the main data reproduced from the first recording medium to be different than a reproduction order of tracks recorded as said first management data,

recording and reproducing means for recording in and reproducing from a second recording medium the main data reproduced from said first recording medium and second management data for managing said main data to be recorded in said second recording medium,

end detection means for detecting an end of each track of the main data reproduced by said reproducing means,

complete reproducing detection means for detecting that each track has been reproduced completely,

management data renewal means for renewing the second management data to be recorded in said second recording medium based on detection results from said end detection means and said complete reproducing detection means, whereby even though the main data recorded in said first recording medium is reproduced in the reproduction order different than the reproduction order of tracks recorded as said first management data by said reproduction order changing means, said second management data is renewed by said management data renewal means based on the reproduction order of tracks recorded as said first management data, and

control means for controlling recording of the main data reproduced from said first recording medium into said second recording medium based on said second management data and

for controlling said management data renewal means so as to renew said second management data when said main data recorded in said second recording medium.

2. (canceled)

3. (canceled)

4. (currently amended) The recording and reproducing apparatus according to claim 1[[3]], wherein
said reproduction order changing means decides the reproduction order of the main data from said first recording medium based on an input from operation means operated by a user.

5. (currently amended) A recording and reproducing apparatus according to claim 1[[3]], further comprising
random number generator means for generating random numbers, wherein said reproduction order changing means decides the reproduction order of the main data recorded in said first recording medium based on random numbers generated by said random number generator means.

6. (currently amended) A recording and reproducing apparatus according to claim 1, wherein
when it is estimated based on said second management data that ~~the~~ main data which has already been recorded in said second recording medium is being reproduced from said first recording medium, recording of said main data being reproduced into said second recording medium is restricted.

7. (currently amended) The recording and reproducing apparatus according to claim 1, wherein

when it is estimated that ~~the main data to be recorded in the second recording medium is reproduced from said first recording medium~~ is not yet recorded in said second recording medium, said control means controls said[[!]] management data renewal means so as to renew said second management data based on management data ~~concerns the main data to be recorded in the second recording medium that~~ is reproduced from said first recording medium.

8. (previously presented) A recording and reproducing apparatus according to claim 1, further comprising

divider means for dividing the main data recorded in the second recording medium based on an end detection signal of each track of the main data from said end detection means for recording.

9. (currently amended) A recording and reproducing method for a recording and reproducing apparatus including reproducing means for reproducing main data and first management data for managing said main data that are recorded in a first recording medium, for recording in a second recording medium and reproducing from the second recording medium the main data reproduced from said first recording medium and second management data for managing said main data to be recorded in said second recording medium, and control means ~~for~~ for controlling recording or reproduction of said main data based on said second management data, the recording and reproducing method comprising the steps of:

changing a reproduction order of tracks of the main data reproduced from said first recording medium to be different from then a reproduction order of tracks as said first management data,

detecting an end of each track of the main data reproduced by said reproducing means,

detecting that each track has been reproduced completely,

renewing the second management data, to be recorded in said second recording medium based on detected results of said end detecting step and said complete reproducing detecting step, wherein even though the main data recorded in said first recording medium is reproduced in the reproduction order different than that of tracks recorded in said first recording medium, said second management data is renewed based on the reproduction order of tracks recorded as said first management data, and

controlling recording the main data reproduced from said first recording medium in said second recording medium based on said second management data, and controlling said management data when said main data is recorded in said second recording medium.

10. (canceled)

11. (canceled)

12. (currently amended) The recording and reproducing method according to claim 9[[11]], wherein

the reproduction order of the main data from said first recording medium is determined based on an input from operation means operated by a user in said reproduction order changing step.

13. (currently amended) The recording and reproducing method according to claim 9[[11]], further comprising

a random number of generating step of generating random numbers, wherein the reproduction order of the main data recorded in said first recording medium is determined in said reproduction order changing step based on the random numbers generated in said random number generating step.

14. (currently amended) The recording and reproducing method according to claim 9, wherein

when it is estimated based on said second management data that the main data which has already been recorded in said second recording medium is being reproduced from said first recording medium, recording said main data in said second recording medium is restrained in said step of controlling recording.

15. (currently amended) The recording and reproducing method according to claim 9, wherein

when it is estimated in said control step that ~~the main data not yet recorded in the second recording medium is reproduced from said first recording medium~~ is not yet recorded in said second recording medium, said management data renewal step is controlled so as to renew said second management data based on management data ~~concerning the main data that is reproduced from said first recording medium and not yet recorded in the second recording medium.~~

16. (previously presented) The recording and reproducing method according to claim 9, further comprising

a dividing step of dividing the main data to be recorded the second recording medium based on an end detection signal of each track of the main data from said end detecting step.

17. (new) A recording and reproducing apparatus comprising:

a reproducing unit for reproducing main data and first management data for managing said main data that are recorded in a first recording medium,

a reproduction order changing unit for changing a reproduction order of tracks of the main data reproduced from the first recording medium to be different than a reproduction order of tracks recorded as said first management data,

a recording and reproducing unit for recording in and reproducing from a second recording medium the main data reproduced from said first recording medium and second management data for managing said main data to be recorded in said second record medium,

an end detection unit for detecting an end of each track of the main data reproduced by said reproducing unit,

a complete reproducing detection unit for detecting that each track has been reproduced completely,

a management data renewal unit for renewing the second management data to be recorded in said second recording medium based on detection results from said end detection unit and said complete reproducing detection unit, whereby even though the main data recorded in said first recording medium is reproduced in the reproduction order different than the reproduction order of tracks recorded as said first management data by said reproduction order changing unit, said second management data is renewed by said management data renewal unit, based on the reproduction order of tracks recorded as said first management data, and

a controller for controlling recording of the main data reproduced from said first recording medium into said second recording medium based on said second management data and for controlling said management data renewal unit so as to renew

said second management data when said main data recorded in said second recording medium.

18. (new) The recording and reproducing apparatus according to claim 17, wherein

said reproduction order changing unit decides the reproduction order of the main data from said first recording medium based on an input from an operation unit operated by a user.

19. (new) The recording and reproducing apparatus according to claim 17, further comprising:

a random number generator unit for generating random numbers, wherein said reproduction order changing unit decides the reproduction order of the main data recorded in said first recording medium based on random numbers generated by said random number generator unit.

20. (new) The recording and reproducing apparatus according to claim 17, wherein

when it is estimated based on said second management data that main data which has already been recorded in said second recording medium is being reproduced from said first recording medium, recording of said main data being reproduced into said second recording medium is restricted.

21. (new) The recording and reproducing apparatus according to claim 17, wherein

when it is estimated that main data reproduced from said first recording medium is not yet recorded in said second recording medium, said controller controls said management data renewal unit so as to renew said second management data based on

management data that is reproduced from said first recording medium.

22. (new) The recording and reproducing apparatus according to claim 17, further comprising

a divider unit for dividing the main data recorded in the second recording medium based on an end detection signal of each track of the main data from said end detection unit for recording.

23. (new) A storing and reproducing apparatus, comprising:

a reproducing unit configured to reproduce main data and first management data for managing said main data that are recorded in a first storage medium;

a storage unit configured to store into a second storage medium the main data and second management data for managing said main data to be stored in said second storage medium; and

a controller configured

to control said reproducing unit to reproduce the main data in the reproduction order different from the reproduction order of tracks stored in said first management data,

to control said storage unit to store the main data reproduced from said first storage medium into said second storage medium based on said second management data, and

to control said storage unit to renew said second management data based on the reproduction order of tracks stored in said first management data.

24. (new) The storing and reproducing apparatus according to claim 23, wherein

said controller decides the reproduction order of the main data from said first recording medium based on an input from an operation unit operated by a user.

25. (new) The storing and reproducing apparatus according to claim 23, further comprising:

a random number generator unit for generating random numbers, wherein said controller decides the reproduction order of the main data recorded in said first recording medium based on random numbers generated by said random number generator unit.

26. (new) The storing and reproducing apparatus according to claim 23, wherein

when it is estimated based on said second management data that main data which has already been recorded in said second recording medium is being reproduced from said first recording medium, recording of said main data being reproduced into said second recording medium is restricted.

27. (new) The storing and reproducing apparatus according to claim 23, wherein

when it is estimated that main data reproduced from said first recording medium is not yet recorded in said second recording medium, said controller controls said second storage unit so as to renew said second management data based on management data that is reproduced from said first recording medium.

28. (new) The storing and reproducing apparatus according to claim 23, further comprising:

a divider unit for dividing the main data recorded in the second recording medium based on an end detection signal of each track of the main data.

29. (new) A storing and reproducing method, comprising the steps of:

reproducing main data and first management data for managing said main data that are recorded in a first storage medium;

storing into a second storage medium the main data and second management data for managing said main data to be stored in said second storage medium;

controlling said step of reproducing such that the main data is reproduced in a reproduction order which is different from the reproduction order of tracks stored in said first management data;

controlling said step of storing such that the main data reproduced from said first storage medium into said second storage medium is based on said second management data; and

controlling said step of storing such that said second management data is renewed based on the reproduction order of tracks stored in said first management data.

30. (new) The storing and reproducing method according to claim 29, wherein

the reproduction order of the main data from said first recording medium is decided based on an input from an operation unit operated by a user.

31. (new) The storing and reproducing method according to claim 29, further comprising the step of:

generating random numbers, wherein the reproduction order of the main data recorded in said first recording medium is decided based on the generated random numbers.

32. (new) The storing and reproducing method according to claim 29, wherein

when it is estimated based on said second management data that main data which has already been recorded in said second recording medium is being reproduced from said first recording medium, recording of said main data being reproduced into said second recording medium is restricted.

33. (new) The storing and reproducing method according to claim 29, wherein

when it is estimated that main data reproduced from said first recording medium is not yet recorded in said second recording medium, said second management data is renewed based on management data that is reproduced from said first recording medium.

34. (new) The storing and reproducing method according to claim 29, further comprising the step of:

dividing the main data recorded in the second recording medium based on an end detection signal of each track of the main data.

35. (new) A storing and reproducing apparatus, comprising:

means for reproducing main data and first management data for managing said main data that are recorded in a first storage medium;

means for storing into a second storage medium the main data and second management data for managing said main data to be stored in said second storage medium; and

means for controlling said reproducing such that the main data is reproduced in a reproduction order which is different from the reproduction order of tracks stored in said first management data, controlling said storing such that the main data reproduced from said first storage medium into said second storage medium is based on said second management data, and controlling said storing such that said second management data is renewed based on the reproduction order of tracks stored in said first management data.

36. (new) A computer-readable medium storing a computer-readable program, the program being operable to implement a recording and reproducing method comprising the steps of:

reproducing main data and first management data for managing said main data that are recorded in a first recording medium,

changing a reproduction order of tracks of the main data reproduced from the first recording medium to be different than a reproduction order of tracks recorded as said first management data,

recording in and reproducing from a second recording medium the main data reproduced from said first recording medium and second management data for managing said main data to be recorded in said second record medium,

detecting an end of each track of the main data reproduced in said step of reproducing main data and first management data,

detecting whether or not each track has been reproduced completely,

renewing the second management data to be recorded in said second recording medium based on detection results generated in said steps of detecting an end and detecting whether or not each track has been reproduced completely,

whereby even though the main data recorded in said first recording medium is reproduced in the reproduction order different than the reproduction order of tracks recorded as said first management data, said second management data is renewed based on the reproduction order of tracks recorded as said first management data, and

controlling recording of the main data reproduced from said first recording medium into said second recording medium based on said second management data and for controlling renewal of said second management data so as to renew said second management data when said main data recorded in said second recording medium.

37. (new) The computer-readable medium according to claim 36, wherein

the reproduction order of the main data from said first recording medium is decided based on an input from an operation unit operated by a user.

38. (new) The computer-readable medium according to claim 36, wherein the method further comprises the step of:

generating random numbers, and

wherein the reproduction order of the main data recorded in said first recording medium is decided based on the generated random numbers.

39. (new) The computer-readable medium according to claim 36, wherein

when it is estimated based on said second management data that main data which has already been recorded in said second recording medium is being reproduced from said first recording medium, recording of said main data being reproduced into said second recording medium is restricted.

40. (new) The computer-readable medium according to claim 36, wherein

when it is estimated that main data reproduced from said first recording medium is not yet recorded in said second recording medium, said second management data is renewed based on management data that is reproduced from said first recording medium.

41. (new) The computer-readable medium according to claim 36, wherein the method further comprises the step of:

dividing the main data recorded in the second recording medium based on an end detection signal of each track of the main data generated in said step of detecting an end of each track.